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(54) THIN FILM TRANSISTOR AND LIQUID CRYSTAL DISPLAY

(57) Abstract:

PURPOSE: A thin film transistor and a liquid crystal display are provided to increase the mobility of electric charges without increasing the size of a driving circuit part, and to obtain the uniformity of the mobility of electric charges between thin film transistors.

CONSTITUTION: Semiconductor patterns are formed of a polycrystalline silicon thin film formed by crystal grains growing on an insulating substrate. A gate electrode(G) formed on the semiconductor patterns includes a first area parallel with a growth direction of the crystal grains, a second and third areas connected to both sides of the first area and vertical to the growth direction of the crystal grains. The semiconductor patterns include a channel area, and a source area and a drain area placed on both sides of the channel area. If gate on voltage is applied to the gate electrode, a channel is formed at the semiconductor patterns to move electric charges through the channel. If data voltage is applied to the source area, the electric charges of the source area move to the drain area through the channel.

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Legal Status

Final disposal of an application (application)